

## WATERSPOUT.

The schooner *Metha Nelson*, which arrived February 19 at San Francisco, Cal., from Makaweli, Kauai, Hawaiian Islands, encountered a waterspout on Sunday February 18, when 30 miles northwest of Point Reyes. Captain Rice states that:

On Sunday morning his vessel was pursued by a column of water which emitted flashes of lightning, and was preceded by a thin curling sea. The weather for the preceding twenty-four hours had been a succession of rain squalls, but the sea was moderate and the weather not unusual for this time of the year.

When the spout first appeared it was some distance astern, according to an account given by the mate, and apparently bearing directly down upon the schooner. There was just time to make everything fast when the great swirling mass of water was close astern and towering over the little vessel. Then, by some strange good fortune, it suddenly changed its course and swept by, only catching the spanker boom and carrying it away. The schooner was thrown on her beam ends by the disturbance of the water but soon righted herself and continued on her course.

## OBJECTIONABLE METEOROLOGICAL TERMS.

We notice in a newspaper from Ashland, Oreg., the expression "The buran or snow-hurricane of the Pamirs." The accompanying description of the buran is quite correct, and it evidently corresponds very nearly to the blizzard of North America. The blizzard is not merely a cold wind, but it must be accompanied by blinding snow, no matter whether it is falling freshly from the sky or drifting along over the ground. It is tautology to speak of a "snow buran" or a "snow blizzard." The hurricane is not merely a strong wind, but is a revolving wind of the cyclonic type, whereas the winds of the blizzards almost always blow more nearly in straight lines, outward from the region of high pressure. It is perfectly proper to speak of a buran, a blizzard, a typhoon, a West India hurricane, as separate types of storms. The buran is one form of snowstorm, but it is not in any sense a hurricane.

## DANGER LINES ON GAGES AND CONTOUR LINES ON CITY MAPS.

In connection with the high water at Albany, N. Y., early in March, the Times-Union of that city says:

The Weather Bureau observer, Mr. A. F. Sims, has what he calls the danger line, and many inquiries were made at the office from merchants along Broadway in regard to the water. Mr. Sims' forecasts came true in regard to the freezing temperatures, and this morning the merchants were praising him for sparing them much trouble. Mr. Sims has a system by which he can tell the merchants of different stores along Broadway how much higher the water will have to come before it will affect their store floors or their boilers. He is keeping a

close watch on the river, and as soon as there is any danger of a flood will inform the merchants who are in danger. This system is greatly appreciated, for it saves them much time and worry.

It would seem that if there is available a map of any city showing the contour lines foot by foot, up to the highest water level, it would be convenient for our observers to specify what streets or cellars will be flooded for any given height of water above the danger line.

## THE LEGAL VALUE OF WEATHER BUREAU RECORDS.

Very few persons realize how very frequently the records of the Weather Bureau are appealed to by the courts. Prof. H. J. Cox, in charge of the station at Chicago, Ill., states that:

Since the opening of the present term of court, last fall, I have been in court thirty-three times to testify as to the condition of the weather at a particular time and as to what bearing it might have on the case at issue. In addition to these thirty-three cases many cases are settled out of court on the records of the weather department. Such cases are principally damage suits arising from the shipment of perishable goods. Every day we have from eight to ten telephone calls and numerous letters from commission merchants asking as to the weather conditions on particular dates and the claims are usually settled accordingly.

## SUDDEN TEMPERATURE CHANGES IN MONTANA.

Mr. C. W. Ling, observer in charge of the Weather Bureau station at Havre, Mont., calls attention to the sudden rise and fall in temperature on March 7 and 8 at that station. The minimum recorded by the thermograph in the early morning of March 6 was about  $-15^{\circ}$  and the general curve for that day had the normal characteristics. On March 7, at 2:45 a. m. seventy-fifth meridian time, there was a sudden rise within three minutes from  $+11^{\circ}$  to  $+42^{\circ}$ , where the temperature remained nearly stationary until 12:30 p. m., when it fell in three minutes from  $+44^{\circ}$  to  $+18^{\circ}$ , and in twenty minutes more to  $+11^{\circ}$ . The temperature curve then remained nearly normal until about 5 a. m. of March 8, when it began to rise rapidly, ascending from  $+20^{\circ}$  to  $+40^{\circ}$  at 6 a. m.; but in a few hours, viz, at 10:30 a. m., it began falling rapidly, and in one hour and thirty minutes passed from  $+43^{\circ}$  down to  $+9^{\circ}$ . The rapid rises on the 7th and 8th were due to the southeast and southwest foehn winds that are so common in this neighborhood; the rapid falls that followed them are said by the observer to have been caused by cold waves. It does not appear that these cold waves always advance far southward. Sometimes they are quite local and may represent the surging north and south of the cold air that covers the lowlands north and east of Havre, which latter station is located about 2,500 feet above sea level.

## THE WEATHER OF THE MONTH.

By ALFRED J. HENRY, Professor of Meteorology.

The weather of the current month east of the Rocky Mountains was for the most part cold and disagreeable. In the Gulf States and Florida there was much rain but no abnormally low temperatures. West of the Rocky Mountains it was warmer than usual with less than the normal amount of rain, except on the coasts of Washington and Oregon. Less than the average amount of snow fell in all districts, except the lower Lake region, the upper Missouri Valley, and northern New England. The number of thunderstorms and severe local storms was remarkably small.

## PRESSURE.

The distribution of monthly mean pressure is graphically shown on Chart IV, and the numerical values are given in Tables I and II.

Mean pressure was highest, 30.18 inches, in the upper Missouri Valley, whence it diminished to 30.00 inches on the Pacific coast, and to 29.90 over the Gulf of St. Lawrence. As compared with the normal, mean pressure was in excess throughout the eastern two-thirds of the United States by amounts varying from one to seven and eight hundredths of